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| APPLICATION NO. | F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-----------------------|--------------|----------------------|-------------------------|------------------|
| 10/037,702 | 10/037,702 01/03/2002 | | Feng Gao | 485800141DVA | 7740 |
| 33204 | 7590 | 07/30/2003 | | | |
| | | IOLOGY, INC. | EXAMINER | | |
| 301 CONES HENDERSO | | | | TSANG FOSTI | FOSTER, SUSY N |
| | | | | ART UNIT | PAPER NUMBER |
| | | | | 1745 | |
| | | | • | DATE MAILED: 07/30/2003 | 5 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| • | | | | | | | |
|---|--|---------------------------|---|--|--|--|--|
| | | Application No. | Applicant(s) | | | | |
| 0.65 | A. C O | 10/037,702 | GAO ET AL. | | | | |
| Οπιсе | Action Summary | Examiner | Art Unit | | | | |
| | NO DATE SALL | Susy N Tsang-Foster | 1745 | | | | |
| Period for Reply | The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status | | | | | | | |
| 1)⊠ Responsiv | ve to communication(s) filed on 23 J | <u>uly 2003</u> . | | | | | |
| 2a)☐ This action | n is FINAL . 2b)⊠ Thi | s action is non-final. | | | | | |
| | application is in condition for allowa | | | | | | |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims | | | | | | | |
| 4)⊠ Claim(s) <u>13-16</u> is/are pending in the application. | | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | | |
| 5) Claim(s) | 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>13</u> | 6)⊠ Claim(s) <u>13-16</u> is/are rejected. | | | | | | |
| 7) Claim(s) | is/are objected to. | | | | | | |
| | are subject to restriction and/or | r election requirement. | | | | | |
| Application Papers | ation is objected to by the Evamines | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. | | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | | |
| 12) The oath or declaration is objected to by the Examiner. | | | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | | |
| a) All b) Some * c) None of: | | | | | | | |
| 1.☐ Certi | 1. Certified copies of the priority documents have been received. | | | | | | |
| 2.☐ Certi | 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | | | |
| a) ☐ The translation of the foreign language provisional application has been received. 15)☑ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | | | | | |
| Attachment(s) | | | | | | | |
| | s Cited (PTO-892) on's Patent Drawing Review (PTO-948) ure Statement(s) (PTO-1449) Paper No(s) <u>3</u> | 5) 🔲 Notice of Informal F | r (PTO-413) Paper No(s) Patent Application (PTO-152) | | | | |
| J.S. Patent and Trademark Office | | | | | | | |

Application/Control Number: 10/037,702 Page 2

Art Unit: 1745

DETAILED ACTION

Response to Preliminary Amendments

1. This Office Action is responsive to the preliminary amendments filed on 1/3/2002 and 7/23/2003. In the preliminary amendment filed on 1/3/2002, claims 1-12 were cancelled. In the preliminary amendment filed on 7/23/2003, claim 13 was amended and claims 14-16 were added. Claims 13-16 are pending and are rejected for reasons given below.

Information Disclosure Statement

2. The information disclosure statement filed on 4/15/2002 has been considered by the Examiner.

Claim Objections

3. Claim 16 is objected to because of the following informalities: In claim 16, the abbreviation for dimethylacetamide should be DMAC instead of DAMC. Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 4. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 5. Claim 13-16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for adding a dialkylamide additive to the electrolyte of the battery, does not reasonably provide enablement for adding an additive to an unspecified part of the battery. The

specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The disclosure is drawn only to a dialkylamide additive in the electrolyte.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "said lithium manganese oxide" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Application/Control Number: 10/037,702 Page 4

Art Unit: 1745

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 10. Claims 13-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lee et al. (US Pat. No. 5,952,126).

Lee et al. disclose an electrochemical cell having a non-metallic anode (col. 5, lines 35-40), a lithium manganese oxide cathode (col. 5, lines 20-25) and an electrolyte which comprises a solute consisting essentially of a salt of lithium, and as solvent a mixture of ethylene carbonate and N,N-dimethylacetamide which are mixed in a 1:1 volumetric ratio (col. 6, lines 1-10). The N, N-dimethylacetamide (DMAC) functions as an additive in the cell because it is present in the electrolyte of the cell and the DMAC inherently has the properties cited in claims 13-16.

Furthermore, lithium manganese oxide would inherently have a breakdown voltage of about 5 volts and the DMAC would inherently absorb the excess charge energy at the breakdown voltage less than that of the lithium manganese oxide when the electrochemical cell is overcharged. An electrochemical cell having DMAC in the electrolyte is inherently characterized by a lesser rate of gas formation during cycling of the cell as compared to a similar cell without the DMAC in the electrolyte. The DMAC in the electrolyte would also inherently neutralize acid attack on the lithium salt in the cell.

Art Unit: 1745

The court has held that claiming of a property or characteristic which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). See also MPEP 2112 and 2112.01. When the Examiner has provided a sound basis for believing that the products of the applicant and the prior art are the same, the burden of proof is shifted to the applicant to prove that the product shown in the prior art does not possess the characteristics of the claimed product. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Conclusion

Any inquiry concerning this communication or earlier communications should be directed to examiner Susy Tsang-Foster, Ph.D. whose telephone number is (703) 305-0588. The examiner can normally be reached on Monday through Thursday from 9:30 AM to 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at (703) 308-2383. The phone number for the organization where this application or proceeding is assigned is (703) 305-5900.

The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9310 for regular communications and (703) 872-9311 for After-Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Susy Leany Josta